



**White Paper**

**BEST PRACTICES: CRISIS RESPONSE AND  
DIVERSION STRATEGIES**

**Prepared for the**

**Task Force on the Plan to Guide the Future  
Mental Health Service Continuum**

**For Review and Discussion at the  
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# MARYLAND HEALTH CARE COMMISSION

## *Plan to Guide the Future Mental Health Services Continuum in Maryland*

### *White Paper Best Practices: Crisis Response and Diversion Strategies*

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## **I. INTRODUCTION**

### **A. Joint Chairmen's Direction**

The 2007 Joint Chairmen's Report<sup>1</sup> (JCR) directed the Maryland Health Care Commission (MHCC or Commission) to work with the Department of Health and Mental Hygiene and Maryland's Mental Health Transformation State Incentive Grant (MHT-SIG) to develop a plan to guide the future mental health service continuum needed in Maryland. The report recommended that the Maryland Health Care Commission develop projections of future bed need for acute inpatient psychiatric services (in State-run psychiatric, private psychiatric and acute general hospitals) and community-based services and programs needed to prevent or divert patients from requiring inpatient mental health services, including services provided in hospital emergency departments. To guide the development of the plan, the JCR identified key stakeholder organizations to be included on a Task Force to provide assistance to the Commission in the development of the plan.

### **B. Plan to Guide the Future Mental Health Service Continuum**

The Plan to Guide the Future Mental Health Service Continuum is intended to address a number of key questions, including:

- What are the service components of the crisis emergency system (including acute inpatient treatment)?
- How will the components differ across urban, suburban and rural areas?
- Which crisis response services should be generally available and which should be targeted to specific and/or enrolled clients?
- Who is expected to access the services?
- Where are the services needed? What service components should be available in urban, suburban and rural areas?
- What will the service components cost?
- What are the roles of the private, and public sectors-local government and state government?
- What financial base is available to support service development and use? Will existing dollars be diverted to these services or will the services only be created through new funding?
- How will the plan be implemented?

Plans should guide the development of effective crisis and diversion strategies to inpatient psychiatric admissions. A plan should be developed and structured so that those persons and agencies responsible for mental health service policy development, facilities regulation, and service funding recognize its practical value in their work. To ensure that the plan has lasting value, it must be linked to resource allocation, either through regulatory processes such as CON or legal requirements such as parity legislation, or as a template used in driving public appropriations or influencing private sector spending decisions.

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<sup>1</sup> Chairmen of the Senate Budget and Taxation Committee and House Committee on Appropriations, *Report on the State Operating Budget (HB50) and the State Capital Budget (HB51) and Related Recommendations*, Joint Chairmen's Report, Annapolis, Maryland, 2007 Session, p. 97-98.

### **C. Purpose and Scope of the White Paper**

This White Paper is the third in a series that will support the development of the *Plan to Guide the Future Mental Health Service Continuum*. The White Paper provides a template for a “good” system of crisis and diversion services. It also provides relevant research and literature regarding the effectiveness of various crisis and diversion services, including the use of outpatient commitment to divert individuals from inpatient services. The paper also provides an overview of the various crisis and diversion services offered in Maryland, including a description, location, utilization and expenditures for these services. It provides an overview of the various pathways for access to crisis and diversion services. Finally, the paper discusses options Maryland may use to improve its diversion and crisis services and questions for Task Force discussion.

## **II. EFFECTIVE CRISIS AND DIVERSION STRATEGIES**

### **A. Introduction**

The President’s New Freedom Commission on Mental Health in 2003 called for the use of evidenced-based practices in the delivery of mental health services.<sup>2</sup> These evidenced based practices have focused on various services for adults and children who have significant mental health needs. In some instances, these services include interventions that prevent or divert an individual from an emergency department and/or an inpatient psychiatric setting. For instance, programs of Assertive Community Treatment are available 24/7 to individuals who may experience a psychiatric crisis.

Crisis services, while not technically an evidenced based practice, are an important part of the continuum of publicly funded mental health services. Over the past several decades they have played an important role in providing immediate access to critical psychiatric services (e.g. evaluations, psychotropic medications and supportive counseling) as well as basic services such as emergency housing, food and clothing. The primary purpose of crisis services is to determine the individual’s risk for hospitalization and/or the ability to use community services to stabilize the individual. Crisis services also provide various post stabilization activities including referral and linkage to intensive outpatient services and supports.

Crisis service providers are generally available 24 hours a day, 7 days a week. They work closely with other community resources including police departments and other social service agencies to respond to the needs of the individual in crisis and their caregiver. They also work closely with hospital emergency departments (ED) to assist the individual to gain access to needed inpatient care or to divert the individual to other services. The crisis providers may provide transport for the individual to or from the ED.

In many instances, crisis providers respond to individuals who are current consumers of mental health services. For these individuals, crisis providers provide same day or next day triaging and communication to ensure the “treating” provider provides the necessary follow-up care.

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<sup>2</sup> The President’s New Freedom Commission on Mental Health, July 2003, p 67

## **B. Components of a Crisis Response System**

A well functioning crisis response system is comprised of several critical functions. These functions include: telephone crisis and triage; face to face crisis response; crisis residential services; urgent care; and, transportation. In some jurisdictions, these functions are performed by one organization often in a centralized location<sup>3</sup>. Each of these functions is discussed in more detail below.

- ***Telephone Crisis and Triage***

Organizations that provide telephone crisis and triage perform these functions 24 hours a day, 7 days a week. These organizations often have a “call center” where clinicians and other well trained staff are available to callers who are seeking immediate assistance in an emergent situation. These organizations often have toll-free numbers for their call centers. In some instances, a state may have a statewide toll free number that routes a caller to a local call center based on the area code and or prefix of the caller’s phone number. Staff at a call center will assess each caller’s risk and determine if a crisis team should be dispatched, contact law enforcement or refer and/or make a same or next day appointment for individuals who have urgent and not emergent mental health needs.

- ***Face to Face Crisis Response***

Staff at the call center may dispatch a crisis worker (or team) to offer an immediate face to face response to an individual in acute psychiatric crisis. This face to face response often includes an assessment of the crisis and determination whether to transport to the individual to the ED, contact law enforcement or provide stabilization services. Stabilization services can include a variety of interventions including an assessment, psychiatric consultation, medication administration, supportive counseling or referral to other services including crisis residential. Crisis response can occur at multiple locations including homes, emergency rooms, police stations, outpatient mental health settings, schools, etc.).

Face to face assessments can also occur at sites that deliver mental health outpatient services. In some instances, outpatient providers schedule a practitioner to be available to respond to individuals who present at their agency with a psychiatric emergency.

Organizations that provide face to face crisis response may also perform other critical functions for the mental health system. In some jurisdictions, including Maryland, mobile crisis workers or teams provide a “gatekeeping” function for admissions to inpatient hospitals. They may also be responsible for managing access to other intensive services including crisis residential beds.

- ***Urgent Care Centers***

Urgent care centers provide fast access to an initial assessment and brief treatment to address the immediate illness. Generally, urgent care services are available to individuals on the same or next day—usually within 24 hours of the request for services. Urgent care centers have extended hours, operating during the evenings and on weekends. These facilities are staffed by medical and other professionals that can render the needed services.

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<sup>3</sup> The Technical Assistance Collaborative, A Community-based Comprehensive Psychiatric Crisis Response Service and Informational and Instructional Manual, April 2005, page 8-12.

- ***Crisis Residential Services***

In some instances, individuals who do not need inpatient psychiatric care may benefit from a short term supervised environment. This environment provides services that support their stabilization including some level of medical oversight. These services can be provided in a small group home (less than 6 beds) that is specifically for individual in crisis or it may be offered in a facility that has a bed(s) earmarked specifically for emergency use. The average length of stay for crisis residential services varies among states. The range is 3-7 days for both adults and children.

- ***23-Hour Beds***

Twenty-three hour beds offer more brief and intensive medical services and oversight than crisis residential programs. Twenty-three hour beds are often operated by inpatient facilities (general hospitals with acute care capacity and private psychiatric facilities). Twenty-three hour beds may be appropriate for individuals who have acute symptoms that can be treated and released within 24 hours.

- ***Transportation***

Individuals may often need transportation when experiencing a psychiatric crisis. Transportation services are generally provided by mobile crisis workers or a combination of crisis workers and law enforcement. Transportation may be provided to various locations including home, emergency departments, crisis residential services and to urgent care services.

- ***Medically Monitored Detoxification***

As previously indicated, individuals who seek crisis services often have significant substance use or abuse histories. Medically monitored detoxification is for individuals who are experiencing signs and symptoms of severe withdrawal of alcohol or drugs. These individuals can benefit from medically monitored detoxification. Medically monitored detoxification provides for 24-hour medically supervised evaluation and withdrawal management. Services are delivered under a defined set of physician-approved policies and physician-monitored procedures and are delivered by medical and nursing professionals.

## **C. Role of Emergency Department in Crisis and Diversion**

Individuals with psychiatric conditions often seek services at hospital emergency departments (ED). For a range of reasons related to quality of care, bed and other resource management, EDs have re-thought their strategies for delivering treatment for persons with psychiatric emergencies. Care management strategies may include the creation of a separate service space proximate to, but separate from the frenetic pace of the main emergency department. Most models include specialized and sometimes multi-disciplinary staffing—a mix of psychiatrists, psychiatric nurses, psychologists, clinical social workers or counselors with expertise in assessing and treating psychiatric emergencies. In this “carved out” setting, the course of care can often result in considerable clinical improvement, reducing the need for inpatient hospitalization. The level of effectiveness in inpatient diversion is further enhanced if there is routine communication and coordination of care with providers of Mobile Crisis Teams, Urgent outpatient services, Crisis Residential, Detoxification and other crisis system services described above.

In many emergency departments, the clinical pathway for persons with psychiatric presentation is no different than for any other patient. It typically starts with an initial screening by a triage nurse, assessment in the general ED bay followed by either admission to an inpatient unit or discharge.

However, Emergency Departments may employ a mix of strategies in managing the care and safety of patients presenting with psychiatric conditions to the emergency department of hospitals. The nature of the strategies is likely influenced by overall bed demand in the emergency department, availability of psychiatrists and other specialists, and the level of competence in psychiatric care management. Strategies commonly employed are related to:

- **Physical Space**—Strategies can range from assigning permanent rooms/beds within the ED proper to creating an area outside of, though often adjacent to, the ED. Most effective are strategies that reduce the pressure on staff to rush to a disposition in order to free beds or focus on acute medical emergencies.
- **Staffing**—The on-site or on-call availability of psychiatrists or properly trained psychologists, nurses, social workers or professional counselors to provide specialized assessment, treatment and discharge planning services.
- **Course of Treatment**—Different protocols related to the length or course of treatment for persons with a psychiatric presentation allow greater opportunity for the delivery of brief treatment and stabilization of symptoms, reducing the need for admission. In some instances planned observation of up to 24 hours is possible without the need for admission.
- **Community Collaboration**—The most effective, available and broadly affordable community-based treatment resources are often provided outside of traditional medical networks of care. Knowing how to access a range of time-sensitive, clinically appropriate services including urgent appointments and crisis residential services on behalf of patients can reduce the need for inpatient care. MCT or PACT team members will often respond to hospitals to assist in accessing these services.

#### **D. Diversion Services**

In addition to the various crisis intervention services described above, there are several interventions that either have crisis services imbedded as part of their approach or can be effective in preventing or diverting individuals for inpatient psychiatric care. These include: assertive community treatment and other mobile team based approaches, and partial hospitalization. In addition, some states have attempted to use outpatient commitment to address individuals who are frequent users of inpatient psychiatric services or have frequent contact with law enforcement due to their mental illness. Each of these services is described in brief.

- ***Mobile Crisis Teams***

Mobile Crisis Teams offer time-limited, on-demand services generally in a natural environment. Mobile Teams can be designed to serve a defined and known age group (children or adults), target population (e.g. individuals who are homeless) or risk group (children at risk of an out-of-home placement). The target of the mobile service, service demand, geographic considerations, and the available array of crisis service influence decisions about the makeup of the team (may be single-clinician response), hours and days of availability (many teams are 24/7/365) and response timeframes. Often provided in homes, schools, nursing homes and group home settings, mobile crisis services can eliminate the need for transportation (many times by law enforcement officers or emergency squads) to a hospital emergency department or community crisis site. The effectiveness of a mobile crisis service in de-escalating a crisis and diverting hospitalization is enhanced by team members who are competent in performing an assessment and delivering an effective course of intervention and having access to a multi-disciplinary support team, ready resources such as access to urgent appointments, brief respite services (either in or out of home) and the ability to provide brief follow up care if indicated.

In addition, the Crisis Intervention Team (CIT) is another mobile team based approach staffed with specially trained police officers who serve as first responders to mental health crisis situations and maintain safety in these encounters.

- ***Partial Hospitalization***

Partial hospitalization programs are time limited, medically supervised programs that offer comprehensive, therapeutically intensive, coordinated, and structured clinical services. Partial hospitalization programs are available at least five days per week but may also offer half-day, weekend, or evening hours. Partial hospitalization programs may be freestanding or part of a broader system but should be identifiable as a distinct and separately organized unit. A partial hospitalization program consists of a series of structured, face-to-face therapeutic sessions organized at various levels of intensity and frequency. Partial hospitalization programs are typically designed for persons who are experiencing increased symptomatology, disturbances in behavior, or other conditions that negatively impact the mental or behavioral health of the person served. The persons served in partial hospitalization do not pose an immediate risk to themselves or others. Partial hospital programs offer an alternative to inpatient care or can be used following an inpatient stay in lieu of continued hospitalization.

- ***Outpatient Commitment***

Outpatient commitment involves a court order mandating a person to follow a treatment plan or risk sanctions for non-compliance, such as potential involuntary hospitalization and treatment. More than one-half of the states give courts the authority to order a person with mental illness to comply with either inpatient or outpatient treatment<sup>4</sup>.

- ***Walk-in/Same Day Clinic Models***

A considerable factor in the heavy use of hospital emergency departments by persons experiencing a psychiatric crisis is the absence of accessible, timely alternatives. Even persons who have an ongoing service provider may find it difficult to access a rapid appointment in the early stages of a crisis. Issues related to worsening symptoms, thoughts of self-harm, lost prescriptions, medication side effects, or psychosocial stressors are generally easily managed in the early stage, but if not addressed in a timely fashion can escalate into a full-blown and high risk crisis that threatens recovery and can be quite debilitating. Virtually every treatment agency has the ability to carve out a portion of time each day or week to create urgent treatment slots—greatly contributing to a community's supply of crisis resources.

- ***Peer-Operated Centers***

Peer-Operated Centers that offer crisis support can be a viable place to turn both in the early phase of a crisis and following discharge from intensive services. Some peer operated centers are specifically equipped to offer crisis support and even brief respite care. Some staff at peer centers accompany the individual to the emergency department. These individuals perform a variety of functions ranging from supportive counseling to ensuring a consumer's pets are attended to if hospitalization is necessary. Symptoms such as loneliness, isolation, fear and anxiety can escalate to a crisis level, particularly on evenings and weekends, when traditional services are less available. Peer-Operated Centers typically

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<sup>4</sup> The Bazelon Center for Mental Health Law, Studies of Outpatient Commitment are Misused, July, 3, 2001



offer an array of structured and unstructured opportunities to interact with others. Services are voluntary, non-traditional, and delivered by persons with first-hand knowledge of mental illness and the periods of crisis that sometimes accompanies it.

- ***Assertive Community Treatment***

Assertive Community Treatment is an intervention that is designed to provide multidisciplinary psychosocial treatment in a community-based setting to individuals who have a severe and persistent mental illness. This service is provided by a team comprised of a psychiatrist, nurse, peer specialist and other staff that offer addiction treatment, supported employment and case management.

- Multidisciplinary treatment teams with a low client to case manager ratio (e.g., 10 to 1 rather than 30 to 1 or more)
- Shared caseloads among clinicians (rather than individual caseloads)
- Direct provision of services, rather than brokering services to other providers
- 24-hour coverage, including emergencies
- Close attention to illness management
- Most services provided in the community, rather than at the clinic
- High frequency of contact with consumers

### **III. BACKGROUND ON CRISIS SERVICES AND LITERATURE REVIEW**

There is a considerable body of evidence suggesting that crisis and diversion services can improve outcomes for consumers, reduce inpatient hospital stays and costs, and facilitate access to other necessary mental health services and supports. In many communities, crisis response services also perform important public health, public safety, and community well-being functions. A brief review of the literature on crisis and diversion services is presented below.

#### **A. Crisis Services**

Over the past forty years, the reduction of state hospital beds impacted the use of emergency departments and private inpatient psychiatric facilities. From 1950 to 2000, the number of state-operated psychiatric beds fell to 59,403 from xxx, while the number of state hospitals declined from 322 to 272.<sup>5</sup> During the same time, shorter admissions to private inpatient facilities increased.<sup>6</sup> Hospital emergency departments often became the default location of psychiatric crisis management<sup>7</sup>. The use of emergency departments to manage psychiatric crisis had several unintended consequences. EDs provided immediate access to care but did not provide or coordinate the necessary aftercare support to individuals who were released. In some instances, the use of EDs resulted in unnecessary hospitalization—especially when limited or no crisis stabilization or ongoing treatment and supports were available in the local community.<sup>8,9</sup>

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<sup>5</sup> Geller, J.L., 2000

<sup>6</sup> Geller, J.L., 2000

<sup>7</sup> TAC, 2005

<sup>8</sup> Clarke Institute of Psychiatry. Health Systems Research Unit. Best Practices in Mental Health Reform: Crisis Response Systems/Psychiatric Emergency Services.

<sup>9</sup> Cesnik, B.I. & Stevenson, K..H. (1979).

There have been a number of studies that have focused on efficacy of crisis services. A 1999 study reviewed and compared the outcomes of individuals who were admitted to crisis residential programs versus those individuals who were admitted to inpatient psychiatric care. The results of the study indicated that short term residential treatment was less expensive and as effective as inpatient psychiatric treatment<sup>10</sup>.

A 1996 review of twelve studies indicated that crisis and emergency department services demonstrated the capacity to prevent institutionalization and provided better behavioral outcomes for children and youth<sup>11</sup>. In addition several studies examined the effectiveness of various crisis models: a mobile crisis team, short-term residential services, and intensive in-home service. The data from these studies showed that mobile crisis interventions prevented emergency department visits and out-of-home placements. Another study reviewed a crisis program, in Suffolk County, New York, that provided short-term residential services to youth. In this study most children were diverted from inpatient hospitalization. In addition inpatient admissions to the state children's psychiatric center were reduced by 20 percent<sup>12</sup>.

## **B. Mobile Crisis Services**

There are several documents that provide information and research on mobile crisis approaches. For instance, the SAMHSA in its 2002 guide "Promoting Older Adult Health: Aging Network Partnerships to Address Medication, Alcohol and Mental Health Problems" recognized a Kings County, Washington mobile crisis team as a promising practice that targets services to physically and medically compromised older adults who are at risk for involuntary hospitalization and in the process addresses other risks such as pending eviction, abuse, dementia, and social isolation.<sup>13</sup>

A study by Guo, Biegel, Johnsen and Dyches published in 2001 found that "a matched sample of consumers who used hospital-based crisis services were 51 percent more likely to be hospitalized after other variables had been controlled for, than users of community-based mobile crisis services."<sup>14</sup> A study published in the Australian and New Zealand Journal of Psychiatry in August 2002 concluded that "[e]mergency psychiatric services which include a mobile component and provide a specialized multidisciplinary team approach appear to be most effective in providing services in the least restrictive environment and avoiding hospitalization." The study found that "[h]ospital-based emergency service contacts were found to be more than three times as likely to be admitted to a psychiatric inpatient unit when compared with those using a mobile community-based emergency service, regardless of their clinical characteristics. Those with severe mental health disorders such as schizophrenia and major affective disorder, and experiencing problems with aggression, non-accidental self-injury, hallucinations and delusions, problems

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<sup>11</sup> Kutash, K., & Rivera, V. R. (1996). *What works in children's mental health services: Uncovering answers to critical questions*. Baltimore: Paul H. Brookes

<sup>12</sup> Shulman, D. A., & Athey, M. (1993). Youth emergency services: Total community effort, a multisystem approach. *Child Welfare*, 72, 171-179.

<sup>13</sup> *Promoting Older Adult Health: Aging Network Partnerships to Address Medication, Alcohol and Mental Health Problems*, U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, 5600 Fishers Lane, 2002.

<sup>14</sup> Shenyang Guo, David E. Biegel, Jeffrey A. Johnsen, and Hayne Dyches, *Assessing the Impact of Community-Based Mobile Crisis Services on Preventing Hospitalization*, *Psychiatr Serv*, Feb 2001; 52: 223 - 228.

with occupation, activities of daily living, and living conditions were more likely to be admitted to hospital. Nevertheless, after controlling for clinical characteristics, site of initial assessment accounted for a substantial proportion of the variance in decisions to admit to hospital."<sup>15</sup>

Mobile crisis teams have an advantage over emergency departments. While emergency department staff, perhaps necessarily, focus on determining whether criteria for inpatient treatment is met, a Mobile Crisis Team has the potential to effectively intervene in early and acute stages of a crisis, offer an array of brief treatment services, facilitate movement to a higher level of care, including hospitalization if indicated, assure continuity of treatment and address any number of psycho-social risk factors.

### **C. Program of Assertive Community Treatment**

Research on ACT has focused on several measures to determine the effects of the model. These measures include: reduction in hospital utilization, housing stability, diversion from jail, continued use of medication, costs and quality of life of ACT participants. There have been over 40 studies that reviewed ACT's efficacy<sup>16</sup>. Most of these studies have been conducted in urban areas and focused on individuals with a history of high inpatient use. Among the 23 studies that examined the effect of ACT on time in hospital, 14 or 61 percent reported positive effects on hospitalization<sup>17</sup>. The most comprehensive study analyzing ACT's impact on inpatient service utilization involved nearly 1,000 consumers in the Veteran's Administration. The study found that consumers who participated in ACT used approximately one-third less inpatient care than those in the control group<sup>18</sup>. An earlier study found that 167 consumers receiving assertive case management were hospitalized for an average of 9.2 days, in comparison to the control group who were hospitalized for an average of 30.8 days.<sup>19</sup> Both of these studies cite the ability to monitor the consumers more closely and to deliver medications as a key contributor to the reduction of rehospitalization.

### **D. Partial Hospitalization**

There have been several studies that reviewed the literature on the effectiveness of partial hospitalization as an alternative to inpatient care. Horvitz-Lennon, et al. (2001) reviewed the research that compared partial and full hospitalization across several domains. This study reviewed eighteen studies published between 1957 and 1997. The authors concluded that outcomes of individuals participating in partial hospitalization were no different from

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<sup>15</sup> Hugo, Malcolm; Smout, Matthew; Bannister, John, *A Comparison In Hospitalization Rates Between A Community-Based Mobile Emergency Service And A Hospital-Based Emergency Service*, Australian and New Zealand Journal of Psychiatry, Vol. 36 Issue 4 Page 504 August 2002

<sup>16</sup> The Lewin Group, Assertive Community Treatment Literature Review, Prepared for HCFA and SAMHSA, April, 2000

<sup>17</sup> Community Based Treatment of Schizophrenia, Assertive Community Treatment, *Medscape General Medicine*, 2001

<sup>18</sup> Phillips, S., Burns, B. Edgar, E., Mueser, K., Linkins, K., Rosenheck R., Drake, R., McDonel Herr, E. (2001) Moving Assertive Community Treatment Into Standard Practice, *Psychiatric Services*. 52 (6): 771-779

<sup>19</sup> Bond G., McGrew, J., Ward, R. (1988) Assertive Case Management in Three CMHCs: A Control Study, *Hospital and Community Psychiatry*. 39 (4): 411-418

those individuals receiving inpatient care<sup>20</sup>. An earlier review of studies focusing on partial hospitalization also found that partial hospitalization produces outcomes equivalent to those of inpatient treatment in symptom improvement, relapse reduction and family adjustment<sup>21</sup>. This review also indicated that partial hospitalization treatment was superior to inpatient care in improving social functioning. Another review in 2003, reviewed admissions to inpatient care for their appropriateness for partial hospitalization. The review identified nine randomized controlled studies of acute day hospital treatment among 2,268 individuals. The studies were conducted between 1988 and 1997. This review indicated that between 23 to 38 percent of all consumers admitted for inpatient services could have been treated in partial hospitalization<sup>22</sup>. In addition the study found that those individuals showed a more rapid improvement in mental state than patients randomized to inpatient care. There was also evidence of increased satisfaction of patients.

It should be noted that several studies discussed the confusion caused by the breadth of the definition of partial hospitalization. Some partial hospital programs are intensive treatment settings designed to substitute for aspects of an inpatient episode, while other so-called partial hospital programs are also referred to as "day care" and serve as low intensity, drop-in centers for clients. This confusion has made it difficult to interpret the research results on evaluations of this service. In addition, these studies also indicate the decline in the use of partial hospital services over the past 25 years due to increases in various psychosocial rehabilitative services, including Assertive Community Treatment.

### **E. Outpatient Commitment**

The literature on outpatient commitment indicates that it does not produce better outcomes and is no more effective at preventing hospitalization than evidence-based practices offered voluntarily. It is also not widely used or enforced, even where it is available. These were the conclusions of several studies and the Surgeon General in 1999. Some early non-experimental studies suggested that outpatient commitment might reduce the overall need for hospital care, but experimental studies did not confirm these earlier studies. More recently, a review performed by the Cochrane Collaborative identified 29 studies of mandated community treatment. The reviewers concluded that involuntary commitment resulted in no significant difference in service use, social functioning or quality of life compared with "standard care" such as routine outpatient care and assertive community treatment.<sup>23</sup>

The Rand Health and Rand Institute for Civil Justice also did a review of eight states' involuntary outpatient commitment programs. The research team conducted interviews with 37 prosecuting and defense attorneys, psychiatrists, and local behavioral health officials to learn how involuntary outpatient treatment had been implemented in their states; how

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<sup>20</sup> Horvitz-Lennon, M, Normand SL, Gaccione, P., Frank, R, Partial versus Full Hospitalization for Adults in Psychiatric Distress: A systematic Review of the Published Literature (1957-1997), *American Journal of Psychiatry*, May 2001, p 676-685

<sup>21</sup> Hoge, M., Davidson, L., Hill, W.L., Turner, V, and Ameli, R, The Promise of Partial Hospitalization: A Reassessment, *Hospital and Community Psychiatry*, April 1992 43 (4) pp 345-354

<sup>22</sup> Marshall, M., Crowthe, R, Almarez-Serrano, AM, Creed F, Sledge WH, Kluiter H. Day Hospital versus admissions for psychiatric disorders, *Cochrane database Syst Rev*, 2003; (1):CD004026

<sup>23</sup> Kisley, S., Campbell, LA, Preston, N. Compulsory Community and involuntary outpatient treatment for people with severe mental disorders. *The Cochrane Database of Systematic Reviews* 2005, Issue 3. Art No: CD004408 pub. 2

consistently it had been implemented across jurisdictions, judges, and providers; and how it had affected patients, providers, treatment resources, and care. The respondents from the Rand study felt that outpatient commitment is not as effective a solution to the problem of compliance as its advocates claim. For example, a patient under outpatient commitment orders can be required to attend a program but cannot be forced to take medication unless found incapable of making such a decision. In addition, a patient who is under an outpatient commitment order cannot be committed to a hospital unless the criteria for admission are met at the time of refusing to cooperate with outpatient treatment. Police are often too busy with other matters to respond to a request by a clinician to enforce an outpatient commitment order by compelling a patient to attend a clinic or other program.

Only two studies of outpatient commitment used randomized clinical trials—one in New York and another in North Carolina. The investigators in New York compared outcomes such as rates of rehospitalization, arrests, quality of life, psychiatric symptoms, and homelessness for two groups: individuals with a mental illness subject to involuntary treatment and individuals receiving intensive services but without a commitment order. Comparing those subjected to outpatient commitment with those who were offered access to the same intensive services, the study found:

- no additional improvement in patient compliance with treatment;
- no additional increase in continuation of treatment;
- no differences in rates of hospitalization;
- no differences in lengths of hospital stay; and
- no difference in arrests or violent acts committed<sup>24</sup>.

A Duke University Study was somewhat consistent with the New York findings. The experimental portion of this study found that hospital admissions and lengths of stay did not differ significantly for participants randomly assigned to outpatient commitment and those in a control group who were not under commitment<sup>25</sup>. When the experiment was concluded, the investigators identified individuals who they felt would benefit from extended outpatient commitment. Those individuals tended to have better outcomes than individuals who were not subjected to outpatient commitment. These latter results are *not* considered experimental evidence and to a great extent reflect the skills of the investigators in selecting individuals for extended commitment.

The evidence suggests that outpatient commitment is unlikely to offer better outcomes than can be achieved with intensive treatment offered voluntarily. This was also the conclusion of the Surgeon General in the 1999 report on mental health.

## **F. Law Enforcement's Crisis Intervention Teams**

Crisis response systems serve a variety of community stakeholders, with one important constituent being law enforcement. Given their responsibilities and interface with the public, law enforcement personnel have the greatest likelihood of encountering persons at some level of psychiatric distress, as well as friends and family who may be intervening on their

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<sup>24</sup> Final Report: Research Study of the New York City Involuntary Outpatient Commitment Pilot Program, (at Bellevue Hospital). Policy Research Associates, December 4, 1998

<sup>25</sup> Swartz, M.S. et al., Can Involuntary Commitment Reduce Hospital Recidivism? Findings From a Randomized Trial with Severely Mentally Ill Individuals. *American Journal of Psychiatry*, 12: 1968-1974 (1999).

behalf. Since police officers are not mental health professionals, it's important to provide them with support and training that will allow them to interact effectively with individuals in psychiatric crisis.

One of the most widely used models of a collaborative partnership between law enforcement and mental health providers is the Memphis Police Department's Crisis Intervention Teams (CIT) which is part of their Community Policing Program. Operated as a partnership with local mental health providers, two universities and the local Alliance for the Mentally Ill, CIT utilizes specially trained, volunteer officers who serve as the front-line response to potential mental health crisis. These officers provide an immediate response to escalating situations and offer a calm approach that reduces the likelihood of physical confrontations and serves as an alternative to traditional policing methods. Today, the so-called "Memphis Model" has been adopted by hundreds of communities, including several in Maryland, and in more than 35 states. The CIT model is also being implemented statewide in Ohio, Georgia, Florida, Utah, and Kentucky<sup>26</sup>. The CIT is a partnership with local mental health providers, the local chapter of the Alliance for the Mentally Ill, and the Universities of Memphis and Tennessee.<sup>27</sup>

### **G. Urgent Care**

As with all of health care, the common best practice belief is that a general emergency department should not be utilized for non-emergency situations that could be more effectively treated in a primary care or urgent care setting. Urgent care services are services which are required for an illness or injury that would not result in further disability or death if not treated immediately, but require professional attention and have the potential to develop such a threat if treatment is delayed longer than 24 hours. Industry standards expect that treatment is provided within 24 hours (generally the same or next day appointment) to address the illness. This compares to emergent services which often require immediate response—generally within one hour of the request for care). Urgent care centers can be free-standing facilities, located in local communities that provide immediate access to an initial assessment and brief treatment to address the immediate illness. Urgent care centers may also part of a hospital or an outpatient clinic. They generally have extended hours, operating during the evenings and on weekends. These facilities are staffed by medical and other professionals who can render the needed services.

Though research on psychiatric urgent care is limited, there is research available regarding the impact of medical treatment in a primary or urgent care setting versus emergency departments. The American Academy of Urgent Care Medicine (AAUCM) asserts that "[t]hough the exact number of these patients is a subject of debate, reasonable estimates of the number of ED patients who could be safely and adequately cared for in a clinic type facility range between 10% and 50%."<sup>28</sup>

### **H. Emergency Department Diversion**

A review of patient demographics and presenting problems, and psychosocial variables will often lead to the identification of community-specific strategies in diverting the flow of persons with psychiatric presentation into emergency departments.

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<sup>26</sup> CIT in Action - Vol. 3 Issue 1, Retrieved from the NAMI website at: [www.nami.org](http://www.nami.org)

<sup>27</sup> Retrieved from the CIT website at: <http://www.memphispolice.org/communit.htm>.

<sup>28</sup> AAUCM 'viewpoints', [www.aaucm.org](http://www.aaucm.org)

The American Hospital Association (AHA) developed a series of recommendations to assist general hospitals in improving their behavioral health services. With recognition that often associated factors such as poverty, homelessness, legal involvement, and other social issues add to the complexity of delivering effective treatment, AHA recommends community-wide coordination and collaboration. When an array of social services and resources “are available in a coordinated and collaborative network of services, patients with behavioral health needs have alternatives to the hospital’s emergency department. Where the services are a disorganized or fragmented patchwork, the hospital’s emergency department often becomes the default point of access. It is in the hospital’s own self-interest to help provide the leadership and initiative to develop a community-wide plan of services and for staff to be aware of behavioral resources in the community.”<sup>29</sup>

A study of treatment patterns for Medicaid recipients with co-occurring mental health and substance abuse services was performed in 2007. This study indicated that these individuals were six times more likely than those with a mental health diagnosis to be hospitalized for psychiatric treatment.<sup>30</sup> In addition, this study indicated these individuals in all five states were also significantly more likely than those with a severe mental illness alone to receive treatment in an emergency department. Patients with 11 or more visits over a five year period at a hospital psychiatric emergency service in Montreal were more likely to fall in one or more of the following categories: diagnosis of schizophrenia, co-morbid diagnosis, younger in age, and/or more economically disadvantaged.<sup>31</sup> “Homeless individuals with mental disorders accounted for a large proportion of persons who received psychiatric emergency services” in urban San Francisco.<sup>32</sup>

Practices related to the issuance of emergency petitions can vary by community and are worthy of review. Maryland law permits “any interested person” to file a petition for emergency evaluation for review of a judge.<sup>33</sup> A 2006 retrospective review of 300 persons brought to Johns Hopkins Memorial Hospital on Emergency Petition found that 37% of persons were discharged from the emergency department. Of the persons admitted to an inpatient psychiatric unit, 67% were admitted voluntarily.<sup>34</sup> Given these numbers the potential exists to offer diversionary options upstream of the emergency petition, perhaps in conjunction with the courts issuing the petitions.

A pattern of very short stay admissions (less than 72 hours) suggests that less-restrictive, non-hospital services, had they been readily available, might work to reduce trips to the emergency department or admissions from the ED to an inpatient treatment unit. A 2000 study of 92 admissions to an observation unit at a Veterans Affairs Medical Center in lieu of

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<sup>29</sup> AHA Task Force on Behavioral Health, *Behavioral Health Challenges in the General Hospital: Practical Help for Hospital Leaders*, 2007

<sup>30</sup> Robin E. Clark, Mihail Samnaliev, and Mark P. McGovern, Treatment for Co-occurring Mental and Substance Use Disorders in Five State Medicaid Programs, *Psychiatric Services*, Jul 2007; 58: 942 - 948.

<sup>31</sup> Yves J. A. Chaput and Marie-Josée Lebel, Demographic and Clinical Profiles of Patients Who Make Multiple Visits to Psychiatric Emergency Services, *Psychiatric Services*, Mar 2007; 58: 335 - 341.

<sup>32</sup> Dale E. McNeil and Renée L. Binder, Psychiatric Emergency Service Use and Homelessness, Mental Disorder, and Violence, *Psychiatric Services*, Jun 2005; 56: 699 - 704.

<sup>33</sup> Maryland Code Ann., Health-Gen. Section 10-620 through 10-626, 2002

<sup>34</sup> Janofsky, Jeffrey S., Tamburello, Anthony C., Diversion to the Mental Health System: Emergency Psychiatric Evaluations, *J Am Acad Psychiatry Law* 2006 34: 283-291

hospitalization found that 88% of persons admitted were successfully discharged the following day and referred to ongoing treatment

To a degree that varies by locale, there has been a shift in the delivery of behavioral health crisis services from hospital emergency rooms to the community. However, research suggests that the emergency room remains a pivotal component in the overall delivery system, and throughout the country demand for this service has increased. "From 1992 to 2001, there were 53 million mental health-related visits, representing an increase from 4.9 to 6.3 percent of all emergency department visits and an increase from 17.1 to 23.6 visits per 1,000 U.S. population across the decade." Of that number 22% of diagnoses were substance use related disorders.<sup>35</sup>

## **I. Detoxification Services**

Detoxification is only the first stage of treatment for withdrawal from alcohol or drugs. The primary purpose of medical detoxification is to manage the physical symptoms of withdrawal in a safe and secure environment. The available research regarding the benefits of medical detoxification indicate that short-term three-day inpatient medical detoxification can help decrease drug use during the next six months and improve psychosocial outcomes.<sup>36</sup> Detoxification is most useful when it incorporates formal processes of assessment and referral to subsequent drug addiction treatment<sup>37</sup>.

## **IV. DESCRIPTION OF CRISIS AND DIVERSION SERVICES IN MARYLAND**

### **A. Crisis Services**

Crisis and diversion services exist throughout Maryland. These services include many of the components described in Section II of this White Paper. This section provides a summary of the publicly funded crisis and diversion services that are offered state-wide as well as these services that are locally funded and managed.

Over the past 20 years, Maryland has developed a comprehensive approach to suicide prevention for youth. The Maryland Suicide Prevention Program is based on a prevention model and the belief that suicide is a "complex problem that needs comprehensive solutions". The Maryland suicide hotline was the first statewide decentralized crisis hotline system in the country. The Maryland model has primarily targeted programs to youth 15 to 24 years of age—focusing on middle, high school, and college students. This program has also targeted "at risk" populations such as people who are gay and lesbian, those institutionalized, and African American youth. This project has been a ten-year partnership among the Mental Hygiene Administration, six local crisis centers, and the Center for Substance Abuse Research at the University of Maryland. According to a recent study conducted by the Big Horn Center for Public Policy (using data from the Federal Center for Disease Control and Prevention), Maryland's suicide rate declined in every age group, most significantly among 15-24 year olds targeted by the program. Youth suicide rates showed dramatic reductions, down 21.4 percent overall, while nationally rates increased 11 percent.

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<sup>35</sup> Gregory Luke Larkin, Cynthia A. Claassen, Jennifer A. Emond, Andrea J. Pelletier, and Carlos A. Camargo, *Trends in U.S. Emergency Department Visits for Mental Health Conditions, 1992 to 2001* Psychiatr Serv, Jun 2005; 56: 671 - 677.

<sup>36</sup> *Principles of Drug Addiction Treatment: A Research-Based Guide*, National Institute on Drug Abuse, NIH Publication No. 99-4180, Printed October 1999.

<sup>37</sup> Kleber, H.D. Outpatient detoxification from opiates. *Primary Psychiatry* 1: 42-52, 1996.



The Maryland Suicide Prevention Program has been a model for other states in developing prevention, intervention, and postvention service.

There is a similar statewide decentralized approach to other crisis and diversion services in Maryland. There are seven communities that receive funding by the Mental Hygiene Administration (MHA) to offer various components of the crisis system discussed in Section II. These communities include: Anne Arundel, Baltimore, Harford, Montgomery, Prince George's, Worcester Counties and Baltimore City. These services are expensive to operate and there needs to be a sufficient, concentrated population and consumer base to make them viable. In addition, the evidence about what works has been based on urban settings primarily. Due to the level, amount and cost of professional staff required, the service tends to be more clinically and cost effective in urban settings. In most of these communities the local Core Service Agency has developed and oversees the various components of the crisis program. These components include:

- Operation or Call Centers provide a 24/7 hotline for callers experiencing a psychiatric crisis. Staff at the call center assess, triage and refer callers to services based on the individual's acuity of symptoms. The operation center will dispatch a mobile crisis team for individuals who need an immediate response or can schedule an appointment at an urgent care center. Some call centers, such as Montgomery County have centralized all their crisis programs including their hotline functions (e.g. mental health crisis, domestic violence, sexual assault line). Others focus exclusively on acute mental health crisis for the general population.
- Mobile Crisis Teams (MCT) or Crisis Response Teams provide an immediate face-to-face response for individuals with acute symptoms. MCT can either be dispatched by the operations centers or in some jurisdictions directly by law enforcement. The MCTs have various practitioners and professionals that staff these teams, including clinicians and nurses. In some jurisdictions (Baltimore County, Montgomery County, Harford County and Worcester County) the mobile crisis teams include representatives from local law enforcement agencies when responding to a crisis. These teams provide crisis services in-vivo, at emergency departments and other community settings. Other than Baltimore City, the MCT serve children and adults. Baltimore City has MCTs that are specifically for children and families. Harford County's team is limited to responding to adolescents and adults. In some instances, these teams are the "gatekeepers" to their crisis residential services. They also provide an important linkage role—rapidly connecting individuals to community mental health and social services. Due to funding constraints most MCTs operate 16-18 hours per day. Worcester and Anne Arundel have developed 24/7 crisis response capacity. Montgomery County now has funding to increase its MCT hours to 24/7.
- Urgent Care Centers provide an immediate assessment, medication evaluation and administration and brief treatment (4-8 follow-up visits). Urgent Care generally operates within a centrally located facility and is available in the evenings on each weekday and on weekend days. Not all crisis providers have a formal "urgent care" capacity. Montgomery and Baltimore Counties have this capacity. Montgomery's service functions on 24/7 basis. Other crisis programs refer to outpatient providers for next day appointments.
- Transportation—this is either provided by the mobile crisis teams or by staff of the urgent care center. Individuals are transported to various settings. More acute individuals may be transported from their home or another community setting to an emergency department or to the state hospital. Individuals may also be transported from urgent care to the next service needed or home when no other resources exist to provide transportation.

- Residential crisis services (RCS) in Maryland are designed to prevent an inpatient psychiatric admission, provide an alternative to psychiatric inpatient admissions, shorten the length of an inpatient stay, or reduce the pressure on general hospital emergency departments<sup>38</sup>. RCS may be provided to both adults and children and operate 24 hours/7 days per week. Services provided in a RCS include: evaluation, treatment and discharge planning, counseling, training and support for crisis prevention, identification and intervention for individuals, and their family, if appropriate. RCS for children may occur at either a licensed facility or a licensed treatment foster home. In some jurisdictions, the MCT provides a gatekeeping function for RCS services. For instance, in Baltimore City, requests for a crisis bed must be reviewed and approved by one of their 8 teams.
- Twenty-three hour observation beds are available on a very limited basis. Baltimore City and Prince George's County have one hospital each that has developed this capacity.

In many of these jurisdictions crisis functions are co-located. The operations center, urgent care staff, MCT, and the crisis residential program are in the same building or location (Baltimore City and Montgomery County). In other jurisdictions, these functions are performed by separate contractors (e.g. Worcester County). The following chart provides information regarding the jurisdictions that comprise the crisis delivered services purchased by the MHA. The data was from the period 10/1-12/31/2007<sup>39</sup>.

**Table 1. Crisis Services in Selected Maryland Jurisdictions:  
10/1/2007-12/31/2007**

Service	Jurisdiction							Total
	Montgomery	Balt. City	Balt. County	Anne Arundel	Worcester	Harford	Prince George	
Crisis Response Telephone Calls	13,027	6,809	3,628	3,718	N/A	485	1,810	29,477
MCT Responses	194	1028	295	450	134	315	208	2,624
MCT Teams	1	8	8	6	1	1	2	27
% Individuals Diverted from ED by MCTs	78.9%	75%	N/A	96.7%	75.37%	72%	N/A	79.59%

According to the MHA data, there were almost 30,000 crisis response calls to the operations centers in these seven jurisdictions. Mobile crisis teams provided a face-to-face response to over 2,600 of these callers (8.79% of all callers). There are 27 teams operating in these jurisdictions. During this period, almost eighty percent (79.59) were diverted from an emergency department by a mobile crisis team.

Data were also available on publicly funded psychiatric urgent care visits for the same reporting period. As indicated in Table 2, there were a total of 2,055 urgent care appointments across jurisdictions. As indicated above, urgent care centers generally

<sup>38</sup> Title 10 Department of Health and Mental Hygiene, Subtitle 21, Chapter 26 Community Mental Health Programs—Residential Crisis Services, page 1

<sup>39</sup> In 2008, the Mental Hygiene Administration implemented a new process for CSAs to report crisis services. The period used for this briefing paper represented the most complete data for the seven jurisdictions using the new reporting forms.

operate within a centrally located facility and the service is available in the evenings on each weekday and on weekend days. In most locations, the urgent care center is co-located with the call center and the mobile crisis team. The number of people treated through urgent care visits varied significantly across jurisdictions. For example, Worcester and Harford counties have limited capacity to provide urgent care. Currently these counties have limited funding to provide this service.

**Table 2. Urgent Care Visits in Selected Maryland Jurisdictions:  
10/1/2007-12/31/2007<sup>40</sup>**

Service	Jurisdiction							Total
	Montgomery	Baltimore City <sup>41</sup>	Baltimore County	Anne Arundel	Worcester	Harford	Prince George	
Urgent Care Appointments	1,329	N/A	274	251	112	21	68	2,055

Data were also collected on individuals who received residential crisis services. Information regarding these services was available from the PMHS service utilization reporting system. Table 3 provides data on RCS from the most recent fiscal year, FY 2007. Over 59% of the total crisis bed days were provided in Central Maryland. The fewest bed days for FY 2007 were in Somerset County in the Eastern Shore Region.

**Table 3. Residential Crisis Services in Selected  
Maryland Jurisdictions: Fiscal Year 2007<sup>42</sup>**

Region	Days
<i>Western Region</i>	
Frederick	1,357
Garrett	520
<i>Region Subtotal</i>	1,877
Montgomery	1,807
<i>Southern Maryland</i>	
Charles	86
Prince George's	2,703
<i>Region Subtotal</i>	2,789
<i>Central Maryland</i>	
Baltimore County	5,846
Baltimore City	3,737
<i>Region Subtotal</i>	9,583
<i>Eastern Shore</i>	
Somerset	70
<i>Region Subtotal</i>	70
Total Bed Days	16,126

<sup>40</sup> Data was provided by the Mental Hygiene Administration

<sup>41</sup> Urgent care data was only available for adult crisis services in Baltimore City.

<sup>42</sup> Source: Claims and Provider data from Maryland's Public Mental Health system.

As indicated in the prior sections, local police departments are often dependent on crisis services to address the needs of individuals who are in acute psychiatric crisis. The CSAs that were contacted by the University of Maryland for this white paper have partnered closely with the various law enforcement officials in their area to respond to individuals in crisis. The partnership varies across CSAs. For instance:

- Several CSAs have implemented Crisis Intervention Teams (CIT) following either the Memphis model<sup>43</sup> model (Baltimore City, Harford, Worcester and Montgomery Counties) or comparable extensive training program (Worcester) in their jurisdiction.
- In Baltimore City and Harford County, law enforcement can contact the Mobile Crisis Team (MCT) directly to make a referral rather than calling the operation center.
- In Baltimore County, police are partnered directly with a mental health clinician.
- In Montgomery County the MCT is on the police radio allowing rapid communication and dispatch by law enforcement of the MCT and or CIT.
- In Anne Arundel County, police contact the mobile crisis team through the operation center and on a police radio.
- In Prince George's County the local law enforcement agencies provide funding for MCT capacity. In Montgomery County, the MCT is funded locally and is part of local government.

In addition, some CSAs as part of their crisis response provide Critical Incident Stress Management (CISM) activities. These CSAs provide CISM related trainings to County staff and volunteers that respond to local disasters. The CSA crisis programs also respond to community traumatic incident and countywide disasters. CSAs providing CISM activities include Anne Arundel, Baltimore, Harford and Prince George counties. The Crisis Center in Montgomery County has provided CISM services for 20 years.

The CSAs surveyed indicated their MCTs serve individuals of all ages, conditions and disabilities. However, there were a few population specific teams. For instance the MHA provides funding to the city of Baltimore for their Children and Adolescent Response System (B-CARS). B-CARS provides telephone triage/consultation with a legal guardian and/or a mobile team assessment which determines the need for either the development of a B-CARS treatment plan for the full array of B-CARS services, referral to the hospital, referral to appropriate outpatient service and/or successful resolution of a crisis situation. In addition, B-CARS may assess and refer a child to a RCS to prevent or as an alternative to hospitalization either at a facility staffed 24 hours a day and seven (7) days a week, or a licensed treatment foster care home, to accommodate youth that cannot be maintained in their homes during the crisis period. A variety of services including in-home intervention, behavioral aide services, residential crisis services, clinic-based psychotherapy services and psychiatric services will be provided for up to two weeks, to support children who have received a B-CARS Mobile Team assessment and have been determined to need the B-CARS array of services.

The Community Outreach Team Anne Arundel (COTAA) targets homeless or treatment resistant persons with severe mental illness. The COTAA team operates 6 days per week, one shift per day. The COTAA team provides services to approximately 40 clients per year. The COTAA team consists of a 0.5 FTE therapist, 1 FTE team leader, and 1 FTE staff.

Individuals with co-occurring mental health and addictive disorders represent a large portion of individuals who use various crisis services. Information regarding the proportion of

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<sup>43</sup> [www.memphispolice.org/Crisis%20Intervention.htm](http://www.memphispolice.org/Crisis%20Intervention.htm)

individuals who have a co-occurring disorder is collected differently across the CSAs. Those interviewed indicated that between 25 and 75% of individuals seeking crisis services had both disorders. Most of the CSAs indicated that approximately 45-50% of individuals receiving MCT services had a co-occurring disorder. The proportion of individuals with these disorders have required the teams to be more competent in the assessment and triaging of individuals in crisis that have used or abused alcohol or drugs and are experiencing acute psychiatric crisis. Unfortunately, many MCTs have limited ability to treat or refer individuals to detoxification. Initially these individuals will need immediate detoxification from alcohol or drugs to relieve the physical symptoms of withdrawal. Depending on the severity of symptoms, an individual may be able to be detoxed within 24 hours or may take several days (or longer). Detoxification is required prior to addressing an individual's psychiatric symptoms. Only one CSA (Baltimore City) had funding to purchase residential detoxification beds.

## **B. Hospital Diversion Projects**

The Mental Hygiene Administration provided funding to three CSAs to develop and implement a Hospital Diversion Project (HDP). CSAs that have a HDP program are: Baltimore City, Montgomery and Anne Arundel Counties. The purpose of the HDP is to divert uninsured persons from inpatient psychiatric admission. When needed the HDP arranges for inpatient psychiatric care in private facilities. These HDPs are available 24 hours a day, 7 days a week and provide mobile crisis evaluation and triage. The HDP programs screen and triage all requests for inpatient psychiatric care for uninsured individuals. They perform the level of care evaluations, on site, at the Emergency Departments (ED), within one hour of request by the hospital. The HDP uses the Maryland Public Mental Health System's medical necessity criteria for reviewing and authorizing psychiatric inpatient level of care. Once the assessment is completed the HDP staff:

- Authorize inpatient level of care when clinically indicated; or
- Refer, obtain, or purchase community based behavioral health services including;
  - Residential Crisis Services,
  - Licensed Residential Addiction Program services,
  - Residential or crisis support services for children and adolescents in appropriately licensed programs,
  - Transportation for consumers from EDs to recommended levels of care,
  - Outpatient Mental Health Treatment,
  - Addictions treatment, and
  - Urgent Care

If the HDP evaluates an individual and determines that he or she needs hospital level of care, then the CSA authorizes the initial admission and continued stay for the uninsured individual. The CSA also assists the hospital with discharge planning in order to refer the individual to community based services. The CSAs that have a HDP use their MCT to perform the diversion functions.

Data were available on the three Hospital Diversion Projects for the period of 10/1-12/31/2007. Table 4 provides an overview of these data.

**Table 4.a Data on Hospital Diversion Programs by Location**  
**10/1/2007-12/31/2007<sup>44</sup>**

Service	Montgomery		Baltimore City		Anne Arundel		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Screening in Emergency Room	153		92		86		331	
Request for IP Care	153	100.00%	92	100.00%	86	100.00%	315	100.00%
Requests Granted for IP Care	96	62.75%	24	26.09%	53	61.63%	173	52.27%
State Hospital Care	4	4.17%	0	0.00%	1	1.89%	5	2.89%
General/Private Hospital Psych Bed	90	93.75%	24	100.00%	52	98.11%	166	95.95%
General Hospital Medical Bed	2	2.08%	5	20.83%	0	0.00%	7	4.05%

As Table 4 suggests almost all individuals who are seen by the hospital diversion team are requesting an inpatient level of care. Of those individuals, approximately 48% are diverted from inpatient care.

Of those individuals who are determined to need inpatient care, most are referred to a private psychiatric purchase-of-care bed. Approximately 3% are referred to the state hospital. Seven individuals (4.29%) needed a medical bed rather than an inpatient psychiatric bed. In some instances, individuals are referred to inpatient psychiatric beds even when the HDP determined they did not need that level of care. For instance, the HDP in Anne Arundel determined that only 43 individuals needed inpatient care, yet 53 were referred to a state or private inpatient psychiatric bed. In some of these instances, the hospital and not the diversion team make the final recommendation for inpatient level of care.

Table 4b provides information regarding discharges between FY 2005 and 2007 for locations with HDPs compared to other regions and statewide. The HDP program was initiated in these jurisdictions in FY 2007. This data would indicate that jurisdictions with a HDP had a greater decrease in state hospital utilization than most regions (with the exception of Southern Maryland) and compared to other counties within their regions. They also had a greater decrease in hospital discharges when compared to statewide data. While this data could support the effectiveness of the current HDP programs, it may not be the only reason for this change.

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<sup>44</sup> Data provided by the Mental Hygiene Administration

**Table 4.b**  
**Trends in Discharges from State Psychiatric Facilities**  
**Comparison of HPD Programs and Regions**  
**FY 2005-2007<sup>45</sup>**

<b>Region</b>	<b>2007</b>	<b>2006</b>	<b>2005</b>	<b>% Change 2005-2007</b>
<i>Western Maryland</i>	111	65	88	26%
<i>Montgomery</i>	122	178	186	-34%
<i>Southern Maryland</i>	115	115	198	-42%
<i>Central Maryland</i>				
Anne Arundel	126	234	315	-60%
Balto City	355	425	548	-35%
<i>Other Central Maryland</i>	333	414	446	-25%
<i>Eastern Shore</i>	280	177	156	79%
Other/Unk.	24	187	59	-59%
<b>Statewide Total</b>	<b>2,305</b>	<b>2,566</b>	<b>2,884</b>	<b>-20%</b>

### **C. Pathways to Crisis Services**

Given the patchwork of crisis and diversion services in Maryland, individuals experiencing acute psychiatric symptoms may have several pathways to access care. Diagram 1 provides an overview of the possible “paths” an individual follows to access crisis services.

Individuals who are *not known* to the public mental health system and reside in a jurisdiction with some crisis capacity may utilize a jurisdiction’s call center and may either receive an immediate face-to-face assessment by the mobile crisis team or be scheduled for a next day appointment at the urgent care center. In addition, these individuals may also go directly to an emergency department to seek services. Once these individuals present at an emergency department, they may be admitted or transferred to an inpatient psychiatric bed or diverted to various options in the community depending on their needs, location and payer source. For instance, individuals who are uninsured and live in Anne Arundel County, Montgomery County or Baltimore City may be referred to a Hospital Diversion Program. For individuals who do not need inpatient level of care, the HDP may schedule an appointment with an urgent care provider. In addition, individuals who are indigent or have Medicaid and meet the PMHS eligibility criteria may be referred to ACT, Crisis Residential, Mobile Treatment Team Services or an intensive home based treatment team (for children and their families).

<sup>45</sup> Source: Maryland Health Care Commission files

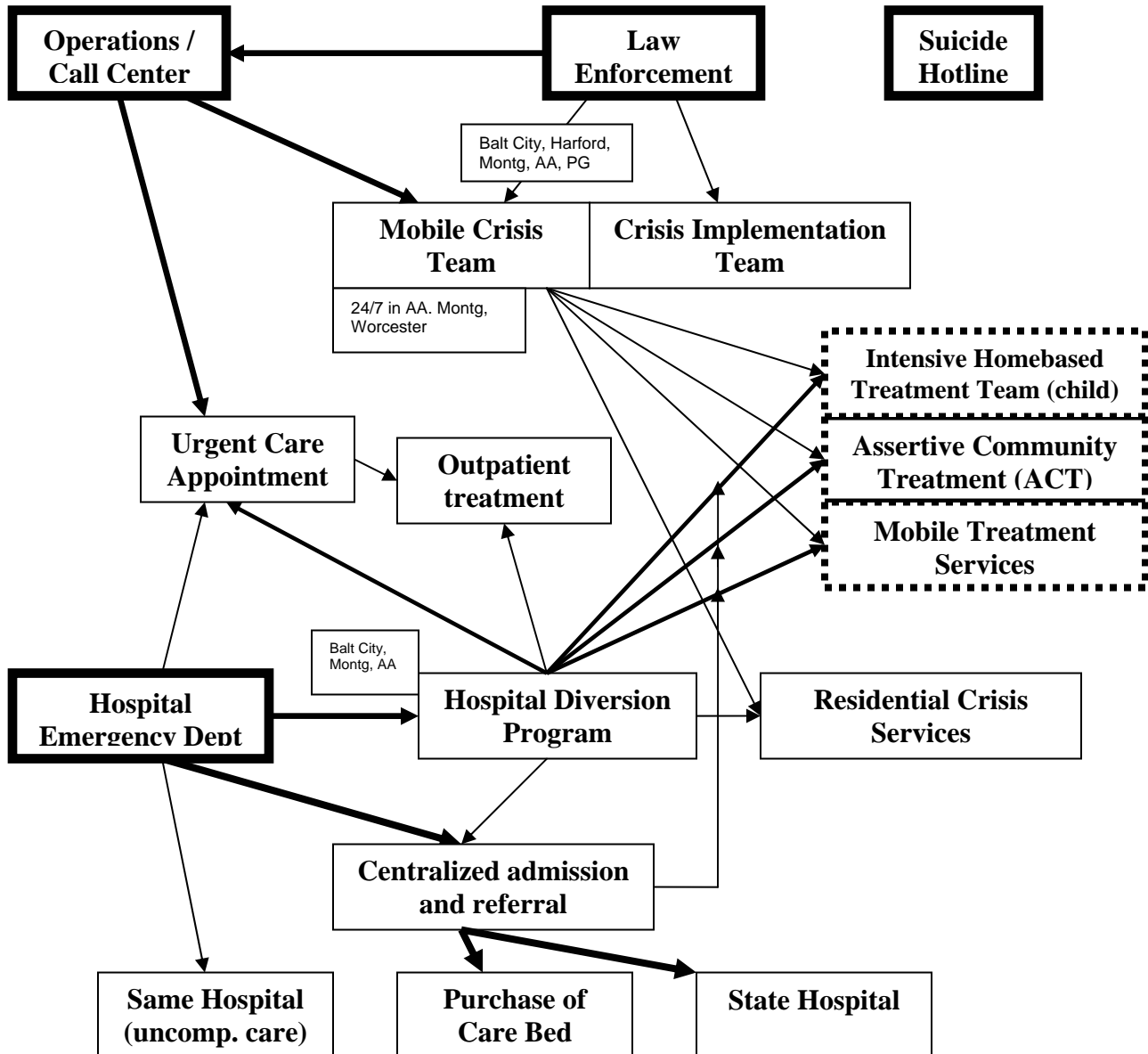
Individuals who are not known to the system and reside in jurisdictions with little or no crisis capacity have fewer options. They may attempt to seek assistance at a local outpatient mental health provider or they may be more likely to present directly at an ED.

Individuals who are *currently receiving* publicly funded mental health services may have several additional pathways to access crisis services. They may access crisis services (assuming they reside in one of the seven jurisdictions with crisis capacity) and receive an MCT response or urgent care appointment. They may also receive crisis services from their current provider. For instance, individuals who are participating in ACT or receiving services from a Mobile Treatment Team may have their crisis needs addressed by these teams as an alternative to the formal crisis service system or ED. In addition, these individuals can present directly to a hospital ED where they may be admitted to an inpatient bed, referred to a HDP (depending on the jurisdiction) or referred for an urgent care appointment the following day.

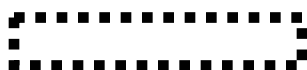
Individuals who have significant drug and/or alcohol issues that impact the ability to accurately assess and provide acute psychiatric services may be referred to a facility for detoxification.



# Crisis Entry Points and Referral Patterns For Public Sector Care



Point of entry during crisis



Community treatment services –  
crisis entry point for current patients only

#### **D. Crisis Expenditures**

Information regarding proposed Crisis Expenditures was collected for most of the larger jurisdictions offering the full complement of crisis services. There were several sources of this information. The MHA provided information for their current contracts (FY 2008) with these jurisdictions. Each jurisdiction was requested to provide 2008 budgets for crisis services. This information was used to calculate projected revenues from other sources (e.g. county funds, award from foundations). "State" revenue was payments made directly to CSAs by the Mental Hygiene Administration for crisis services. This included federal block grant funding and state appropriations. "Other" revenue was funding received by the CSA from PMHS payments (including Medicaid), county funding, foundation payments and third party payments from private insurers.

The crisis spending in the following chart is specifically for call centers, mobile crisis teams, hospital diversion programs and crisis residential services. It does not include ACT, partial hospitalization or other mobile teams.

**Table 5. Proposed Crisis Spending in Selected Maryland Jurisdictions  
FY 2008<sup>46</sup>**

Source	Montgomery	Baltimore City	Baltimore County	Anne Arundel	Worcester	Harford	Prince George	Total
State	\$1,115,003	\$2,294,982	\$407,600	\$ 1,736,662	\$335,338	\$678,000	\$1,194,094	\$7,761,679
Other	\$3,604,877	\$1,554,453		\$609,129	0	0	0	\$5,768,459
Total	\$4,719,880	\$3,849,435	\$407,600	\$2,345,791	\$335,338	\$678,000	\$1,194,094	\$13,530,138

#### **E. Diversion Services**

The Maryland Public Mental Health System offers several services that can prevent an inpatient psychiatric admission or provide an alternative to psychiatric inpatient admissions. These services include: Mobile Treatment Services, Assertive Community Treatment (ACT), and Partial Hospitalization.

Since 1988, mobile treatment services (MTS) have been available in Maryland. These services were designed to provide intensive, assertive mental health treatment and support services delivered by a multidisciplinary treatment team to an adult or a minor whose mental health treatment needs have not been met through routine, traditional outpatient mental health programs. The purpose of mobile treatment services (MTS) is to enable the individual to remain in the community, thus reducing the individual's admissions to emergency rooms, inpatient facilities, or detention centers. A goal of MTS was to transition individuals from more intensive services to less intensive outpatient services. MTS services include medication administration, monitoring and education services, independent living skills assessment and training, health promotion and training (including illness and substance abuse prevention and wellness training), individual therapies and support, linkage and advocacy. Although similar to assertive community treatment, mobile treatment programs do not necessarily adhere to the fidelity standards of ACT. In 2007, approximately 1,200 individuals received mobile treatment services.

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<sup>46</sup> Revenue data was provided by Core Service Agencies through a May, 2008 survey

Since 2005 the PMHS has offered evidenced-based ACT to adults with significant mental health needs. These ACT teams provides intensive, mobile, assertive mental health treatment and support services delivered by a multidisciplinary treatment and support team to an adult whose mental health treatment needs have not been met through routine, traditional outpatient mental health programs. In FY 2007 532 adults received Assertive Community Treatment from these teams. The PMHS also purchases partial hospitalization services. PHP is an alternative to inpatient care when the consumer can safely reside in the community This service provides outpatient, short-term, intensive, psychiatric treatment service that parallels the intensity of services provided in a hospital, including medical and nursing supervision and interventions. This level of service is a benefit for children, adolescents, and adults. In Maryland partial hospitalization services must provide four hours of treatment per day. Over 3,400 individual were served by these programs. Table 6.a provides more detailed information regarding the expenditures and number of individuals receiving these services by county.

**Table 6.a Diversion Services  
Total Expenditures and Persons Served: FY 2007<sup>47</sup>**

Region	Partial Hospitalization		Mobile Treatment		ACT	
	Expenditures	Persons Served	Expenditures	Persons Served	Expenditures	Persons Served
<i>Western Maryland</i>						
Allegany	\$583,325	147	\$141,320	36	\$0	0
Frederick	\$243,425	87	\$109,018	22	\$0	0
Garrett	\$164,792	49	\$19,476	10	\$12,100	5
Washington	\$171,692	122	\$1,114,007	183		
<i>Montgomery County</i>	\$408,498	170	\$114,399	83	\$509,900	71
<i>Southern Maryland</i>						
Calvert	\$97,693	45	\$5,980	2	\$1,100	1
Charles	\$40,031	21	\$7,020	3	\$0	0
Prin. Geo.	\$289,047	114	\$1,206,441	292	\$410,450	79
St. Mary	\$79,422	31	\$0	0	\$0	0
<i>Central Maryland</i>						
Anne Arundel	\$484,904	153	\$2,461	88	\$1,048,925	122
Balto Co	\$2,002,883	488	\$1,438,619	320	\$247,075	34
Balto City	\$13,061,082	2,779	\$2,612,047	729	\$2,588,025	374
Carroll	\$104,749	35	\$250,484	39	\$6,600	1
Harford	\$46,609	29	\$258,064	43	\$1,100	1
Howard	\$2,416	2	\$0	0	\$0	0
<i>Eastern Shore</i>						

<sup>47</sup> Expenditures and persons served based on claims data from the Maryland fee-for-service public mental health system; 2007 population estimates from the Maryland Department of Planning.

Caroline	\$32,598	14	\$0	0	\$0	0
Cecil	\$96,131	48	\$7,020	1	\$13,050	2
Dorchester	\$131,376	32	\$0	0	\$0	0
Kent	\$14,763	5	\$0	0	\$0	0
Queen Anne's	\$13,956	7		1	\$2,200	1
Somerset	\$18,808	4	\$0	0	\$0	0
Talbot	\$44,290	10	\$0	0	\$0	0
Wicomico	\$207,791	56			\$2,200	1
Worcester	\$17,726	8	\$0	0	\$0	0
Out of St/Unk	\$6,193	3	\$12,489	3		
<b>State Totals</b>	<b>\$18,364,196</b>	<b>4459</b>	<b>\$7,298,845</b>	<b>1855</b>	<b>\$4,842,725</b>	<b>692</b>

Table 6.b provides regional information regarding the cost per person and per capita expenditures by diversion service. The average statewide cost per person for partial hospitalization was \$4,118 in FY 2007, largely reflecting the cost per person served in Baltimore, an area of very high per person cost and very high utilization. The average statewide cost per person for mobile treatment was \$3,935 in FY 2007 and varied greatly across jurisdictions. The average statewide cost per person for ACT was \$6,998 in FY 2007 and also showed substantial variation.

The per capita expenditures also varied across services and regions. The statewide average per capita expenditure for partial hospitalization was \$3.27 in FY 2007. Three counties and Baltimore City exceeded this statewide cost per person. Baltimore City per capita expenditures for partial hospitalization was almost five times the statewide average. The statewide average per capita expenditure for mobile treatment was \$1.30 in FY 2007. Six counties exceeded this statewide average. The statewide average per capita expenditure for ACT was \$.86 in FY 2007. Anne Arundel County and Baltimore City exceeded this statewide average.

**Table 6.b Diversion Services  
Cost Per Persons and Per Capita Expenditures  
By Region FY 2007<sup>48</sup>**

Region	Partial Hosp.		Mobile Treatment		A.C.T.	
	Cost per Person	Cost per Capita	Cost per Person	Cost per Capita	Cost per Person	Cost per Capita
<i>Western Maryland</i>						
Allegany	\$3,968	\$8.04	\$3,926	\$1.95	\$0	0
Frederick	\$2,798	\$1.08	\$4,955	\$0.49	\$0	0
Garrett	\$3,363	\$5.56	\$1,948	\$0.66	\$2,420	\$0.41
Washington	\$1,407	\$1.18	\$6,087	\$7.68	\$0	0
<i>Montgomery</i>	\$2,403	\$0.44	\$1,378	\$0.12	\$7,182	\$0.55

<sup>48</sup> Ibid 58

Southern Maryland Totals						
Calvert	\$2,171	\$1.11	\$2,990	\$0.07	\$1,100	\$0.01
Charles	\$1,906	\$0.29	\$2,340	\$0.05	\$0	0
Prin. Geo.	\$2,535	\$0.35	\$4,132	\$1.46	\$5,196	\$0.50
St. Mary	\$2,562	\$0.79	\$0	0	\$0	0
<i>Central Maryland</i>						
Anne Arundel	\$3,169	\$0.95	\$28	\$0.00	\$8,598	\$2.05
Balto Co	\$4,104	\$2.54	\$4,496	\$1.82	\$7,267	\$0.31
Balto City	\$4,700	\$20.49	\$3,583	\$4.10	\$6,920	\$4.06
Carroll	\$2,993	\$0.62	\$6,423	\$1.48	\$6,600	\$0.04
Harford	\$1,607	\$0.19	\$6,001	\$1.08	\$1,100	\$0.00
Howard	\$1,208	\$0.01	\$0	0	\$0	0
<i>Eastern Shore</i>						
Caroline	\$2,328	\$0.99	\$0	0	\$0	0
Cecil	\$2,003	\$0.96	\$7,020	\$0.07	\$6,525	\$0.13
Dorchester	\$4,105	\$4.13	\$0	0	\$0	0
Kent	\$2,953	\$0.74	\$0	0	\$0	0
Queen Anne's	\$1,994	\$0.30	\$0	\$0.00	\$2,200	\$0.05
Somerset	\$4,702	\$0.72	\$0	0	\$0	0
Talbot	\$4,429	\$1.22	\$0	0	\$0	0
Wicomico	\$3,711	\$2.22	\$0	0	\$2,200	\$0.02
Worcester	\$2,216	\$0.36	\$0	0	\$0	0
Out of St/Unk	\$2,064	N/A	\$4,163	N/A	\$0.00	N/A
Total	\$4,118	\$3.27	\$3,935	\$1.30	\$6,998	\$0.86

#### F. Management of Patients with a Psychiatric Presentation in Emergency Departments

Interviews of staff from CSA's and some emergency departments, and review of hospital websites allows a cursory look at the array of emergency department practices in Maryland as detailed in Table 7.

**Table 7: Specialized Approaches to Psychiatric Care in Hospital Emergency Departments<sup>49</sup>**

CSA	Hospital	Physical Space	Specialized Staffing	HDP Targeted Hospital
Anne Arundel	Baltimore Washington Medical Center	Yes	No	No
	Anne Arundel Medical Center	Yes	No	Yes
Baltimore City	University of Maryland	Yes	Yes	No

<sup>49</sup> Survey by the University of Maryland of the Core Service Agencies, 2007

	Johns Hopkins Hospital	Limited	Yes	No
	Johns Hopkins Bayview Medical Center	No	No	No
	Bons Secours Hospital	No	No	No
	Sinai Hospital of Baltimore	No	No	No
	Good Samaritan Hospital	No	No	Yes
	Mercy Medical Center	No	No	Yes
	Harbor Hospital Center	No	No	Yes
	Saint Agnes Hospital	No	No	Yes
Baltimore Co.	Greater Baltimore Medical Center	No	Y-Contract	No
	Franklin Square Hospital	Y-post-med clearance	Yes	No
	Northwest Hospital Center	No	No	No
Harford	Upper Chesapeake Medical Center	No	No	No
	Harford Memorial Hospital	No	No	No
Montgomery	Holy Cross Hospital	No	No	Yes--not started
	Shady Grove Adventist Hospital	Yes	Y-Contract	Yes
	Montgomery General Hospital	No	No	No
	Washington Adventist Hospital	No	No	No
	Suburban Hospital Health Care System	No	Yes	No
Prince Georges	Laurel Regional Hospital	No	No	No
	Prince George's Hospital Center	23 hour obs. bed	Yes	No
	Southern Maryland Hospital Center	No	No	No
Worcester	Atlantic General Emergency Room	No	No	No

## Review of Select Hospital Emergency Department Strategies in Maryland

There are a number of hospitals that have various unique practices to treat individuals with a psychiatric emergency in their emergency departments. In some instances, these facilities have a separate physical space for individuals with psychiatric emergencies. In other instances, these emergency departments have specialized staffing (individuals with specific credentials (psychiatrist, licensed mental health clinician) or have specific training or history in serving this population. As Table 7 indicates, 9 hospitals were identified in the University of Maryland's survey with CSAs as having specialized approaches to psychiatric care. Three hospitals who have taken steps to manage psychiatric care differently are described below.

- ***The University of Maryland Medical Center***

The University of Maryland Medical Center opened its Psychiatric Emergency Services (PES) program in 2006. With exceptions for those with a co-morbid acute medical condition, adults with a psychiatric presentation are directed following an initial triage to the PES treatment area. Co-located in the PES treatment area is a Psychiatric Urgent Care (PUC) service for less-acute walk-in services and the Psychiatric Assessment and Referral Center (PARC) that provides admission and scheduling for the full range of inpatient and outpatient services provided within the university psychiatric care network. The physical space of the program is a mix of locked and unlocked areas with a reception area, three examination rooms, two team rooms, three large patient areas with reclining geri-chairs and a shared workspace. There is also physical space for use by community providers, such as MCT or PACT team members who are called to the hospital to assist in disposition. The

staffing consists of 24 hour nursing, social work and psychiatric resident coverage. A psychiatrist is on site for 12 hours each day and on call after hours. The course of treatment is variable and far more flexible, when there is space away from the pace of the general ED. Following a thorough assessment and engagement of the outpatient treatment provider, if applicable and possible, a decision is made. The decision may be to discharge to a lower level of care, to admit to an inpatient unit, or to provide a period of observation and treatment on the PES unit for up to 23 hours. In the case of someone who is intoxicated at admission, this allows for a necessary period of sobering before a complete assessment and decision about the need for inpatient admission. The interdisciplinary team in the PES program has made a concerted effort to maximize community collaboration. There is high regard for the Mobile Crisis Team that responds to the hospital (BCRI out of Baltimore City) and the array of resources that they can access (such as a residential crisis bed). PES maintains a list of persons served through the PACT team operated by UMMS so that the team can have very early involvement in hopes of preventing an inpatient admission.

- ***Shady Grove Adventist Hospital***

Shady Grove Adventist Hospital, part of Adventist Healthcare, is a 250-bed acute care community hospital without an inpatient psychiatric unit. Separate treatment space that is adjacent to the emergency department is reserved for use by psychiatric patients. Though the beds are staffed with the general emergency department team, mental health evaluators from Potomac Ridge Hospital (also part of Adventist Healthcare) are available in the emergency department for consultation on a 24/7 basis. Shady Grove is one of the targeted facilities in the Hospital Diversion (HDP) project. The Montgomery County MCT serves Shady Grove and has had considerable success in diverting individuals who would otherwise have met the criteria for admission.

- ***Franklin Square Hospital***

Franklin Square is a 329 bed general acute care hospital that does have an inpatient psychiatric unit. The high demand for psychiatric services through the emergency department and often significant delays in discharge—reported to be as long as three to six days—while attempting to locate a treatment bed (inpatient psychiatric or detoxification service) led to the development of a “Psychiatric Annex” that is adjacent to the emergency department. The course of treatment starts with a triage assessment and then admission to a general emergency department bed for medical treatment. Once medically stabilized (including lowered blood alcohol level) the patient can be moved to the annex. The physical space includes three large dorm-like rooms two of which have 6-8 mattresses on the floor. The third is for persons who might be violent. The Annex is staffed by Masters-prepared social workers or counselors who provide some intervention, but primarily focus on discharge planning. There is no psychiatric coverage in the emergency department or in the Annex. The local MCT is not called into the hospital; however the staff may request that the MCT provide next day follow-up care.

## **V. Data on Individuals Needing Crisis and Diversion Services**

In an effort to identify trends in admission and possible strategies to circumvent hospitalization in favor of less-restrictive, community-based alternatives, summary data was provided about persons who received inpatient treatment.

Table 8.a provides information by diagnosis and emergency department visit. It also provides the number and percent of individuals admitted from the emergency department.

As this table indicates the most frequent mental health diagnoses are “other” PMHS diagnosis and substance abuse.

**Table 8.a**  
**Emergency Department Visits and Hospital**  
**Admission By Diagnosis: 2006<sup>50</sup>**

Diagnosis	Total ED Visits	Admitted ED Visits	Percent Admitted ED Visits
Other PMHS Diag.	30,365	3,990	13.1%
Substance Abuse	28,175	4,718	16.7%
Major Affective Disorders	24,108	12,855	53.3%
SCHIZOPHRENIA	8,449	5,079	60.1%
Other Psychotic Dis.	4,015	1,090	27.1%
Other Mental Health	3,433	898	26.2%
Devel. Disabilities	66	8	12.1%
Total	98,611	28,638	29.0%

Table 8.b provides emergency department visits and hospital admission by age. The most frequent ED visits were for adults between the ages of 22 and 64 years old. The age group with the highest percentage of admissions from emergency departments is older adults over the age of 65.

**Table 8.b**  
**Emergency Department Visits and Hospital Admission**  
**By Age: 2006<sup>51</sup>**

Age	Total ED Visits	Admitted ED Visits	Percent Admitted ED Visits
> 12 years old	2,835	316	11.1%
13 – 17	8,243	839	10.2%
18 – 21	7,419	1,672	22.5%
22 – 64	73,828	23,259	31.5%
Age 65+	6,282	2,552	40.6%
Age Unknown	4		0.0%
All Ages	98,611	28,638	29.0%

<sup>50</sup> Source: Maryland Health Care Commission data.

<sup>51</sup> Source: Maryland Health Care Commission data.



Table 8.c provides emergency ED visits and subsequent admissions by region. The statewide average for FY 2007 ED visits that resulted in an admission was approximately 29%. These admissions varied among regions ranging from 21 percent in the Eastern Shore and approximately 35% in Montgomery County.

**Table 8.c**  
**Emergency Department Visits and Hospital Admission**  
**By Region: 2006<sup>52</sup>**

Age	Total ED Visits	ED Visits Admitted	Percent Admitted ED Visits
<i>Western Maryland</i>			
Allegany	2,413	1,051	43.6%
Frederick	3,077	798	25.9%
Garrett	363	56	15.4%
Washington	3,235	795	24.6%
<i>Montgomery</i>	12,151	4,241	34.9%
<i>Southern Maryland</i>			
Calvert	1,435	450	31.4%
Charles	816	53	6.5%
Prin. Geo.	5,630	1,596	28.3%
St. Mary	3,591	1,738	48.4%
<i>Central Maryland</i>			
Anne Arun	6,427	1,002	15.6%
Balto Co	11,331	2,293	20.2%
Balto City	32,020	9,797	30.6%
Carroll	2,731	1,430	52.4%
Harford	2,979	909	30.5%
Howard	3,163	971	30.7%
<i>Eastern Shore</i>			
Cecil	1,508	536	35.5%
Dorchester	1,167	278	23.8%
Kent	464	27	5.8%
Somerset	87	5	5.7%
Talbot	1,116	52	4.7%
Wicomico	2,359	535	22.7%
Worcester	548	25	4.6%
<i>Statewide</i>	98,611	28,638	29.0%

<sup>52</sup> Source: Maryland Health Care Commission data.

Table 8.d identifies the percent of persons discharged with a length of stay of fewer than three days from Public Mental Health System-Funded Hospital Stays at either a Maryland Acute General Hospital or a Private Psychiatric Hospital. Counties with higher percentages of very short stays might be good candidates for implementation of emergency department diversion strategies.

**Table 8.d: All Discharges and Discharges with Lengths of Stay Less than Three Days: 2006<sup>53</sup>**

	Acute General Hospitals			Private Psychiatric Hospitals		
	<i>All</i>	<i>LOS &lt;</i>	<i>Per Cent</i>	<i>All</i>	<i>LOS &lt;</i>	<i>Per Cent</i>
	<i>Discharges</i>	<i>3 Days</i>		<i>Discharges</i>	<i>3 Days</i>	
<i>Western Maryland</i>						
Allegany	1,675	793	47.3%	476	60	12.6%
Frederick	1,882	672	35.7%	438	61	13.9%
Garrett	2,338	713	30.5%	322	42	13.0%
Washington	1,318	503	38.2%	1,135	131	11.5%
Montgomery	5,049	1,783	35.3%	4,446	371	8.3%
<i>Southern Maryland</i>						
Calvert	803	305	38.0%	69	14	20.3%
Charles	547	195	35.6%	95	4	4.2%
Prin. Geo.	4,722	1,477	31.3%	1,903	191	10.0%
St. Mary	760	259	34.1%	47	7	14.9%
<i>Central Maryland</i>						
Anne Arundel	2,625	650	24.8%	946	120	12.7%
Balto Co	10,282	2,214	21.5%	1,672	190	11.4%
Balto City	42,255	9,282	22.0%	2,550	295	11.6%
Carroll	4,616	2,517	54.5%	230	29	12.6%
Harford	1,324	525	39.7%	594	79	13.3%
Howard	302	114	37.7%	92	7	7.6%
<i>Eastern Shore</i>						
Caroline	176	65	36.9%	120	4	3.3%
Cecil	670	420	62.7%	358	41	11.5%
Dorchester	508	112	22.0%	100	5	5.0%
Kent	43	5	11.6%	36	1	2.8%
Queen Anne's	166	35	21.1%	73	15	20.5%
Somerset	171	43	25.1%	21	2	9.5%
Talbot	269	125	46.5%	78	11	14.1%
Wicomico	948	244	25.7%	74	15	20.3%

<sup>53</sup> Maryland Health Care Commission data

Worcester	190	17	8.9%	56	6	10.7%
Other/Unk	67	17	25.4%	68	0	0.0%
<b>Total</b>	<b>83,706</b>	<b>23,085</b>	<b>27.6%</b>	<b>15,999</b>	<b>1,701</b>	<b>10.6%</b>

While the percentage of persons with very short stays is small, additional characteristics yield opportunities for 'upstream' targeted solutions to divert crises and subsequent emergency department visits perhaps particularly for persons with co-occurring disorders. This could include both a review of options such as 23 hour observation and detoxification services on the front end of a crisis and linkage to dually trained treatment teams on the back end to prevent readmission. Prioritizing housing/supported housing for persons leaving an inpatient level of stay is another risk reduction strategy that could be explored.

The data indicate that 18.4% of persons discharged are homeless at admission. This is a significant finding as homelessness is a factor that increases the likelihood of re-hospitalization, is a barrier to continuity of treatment and is generally associated with an absence of financial resources. Specific investments to consider for persons who are mentally ill and homeless include mobile treatment services, supported housing, supported employment, and access to primary care services.

Very low rates of admission for persons with developmental disabilities suggest effective diversion strategies are in place for this population at least in terms of state-operated hospitals<sup>54</sup>. Evaluation of this data for persons with developmental disabilities admitted to general hospitals (who have less ability to control entry through the emergency department) may yield additional information about the need to identify crisis intervention strategies. Strategies for persons with developmental disabilities are often geared toward the use of behavioral specialists, in-home crisis response, and/or brief respite for the identified person or the caregiver.

Finally, data were provided on persons "new to the system" at the time of admission to a State Hospital, acute general hospital psychiatric unit, or PMHS paid private psychiatric admission which indicates that 31% of persons hospitalized in FY 2007 were unknown to the system at the time of admission to any of these facilities. Strategies to prevent unnecessary use of the emergency department should consider the pathway to services for this group so that the highest level of care is not the route of first choice.

## **VI. Areas of Concern**

In May of 2008, the University of Maryland interviewed Core Service Agencies and the Mental Hygiene Administration and identified several areas that present challenges to the current crisis and diversion efforts in Maryland. The specific areas include: the timeliness and thoroughness of the psychiatric evaluations performed in Emergency Departments, the lack of crisis response in most areas of the state, and the limited capacity of current crisis providers to offer crisis and diversion services.

As indicated in the previous section, many hospitals in Maryland are enhancing their capacity to effectively respond to individuals in psychiatric crisis that present in their EDs.

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<sup>54</sup> Data for state hospital admissions was only on primary diagnosis, therefore the number of individuals with a secondary diagnosis of developmental disabilities or addictive disorders may be more significant than indicated by this data.

Yet there are still many EDs that could improve their response to these individuals. Specific concerns cited included the EDs ability to assess and address somatic and psychiatric issues. In addition, EDs may not have staff with mental health experience to perform quality evaluations. EDs may not be familiar with the community alternatives that can be used to divert individuals. Even when they are knowledgeable of these alternatives, EDs may have limited experience or little confidence that these alternatives can adequately and safely treat the individual in the community.

As indicated in the previous section, all regions in Maryland have some components of a crisis system. Some counties within these regions have more robust components. Other counties have some crisis capacity (e.g. a local crisis hotline) but have no real capacity to provide mobile crisis teams. When the utilization for these services is reviewed some counties have few or no individuals receiving various crisis and diversion services. This indicates that individuals in these counties may be seeking these services in neighboring counties. In addition, individuals in these counties have limited access to other crisis and diversion services such as crisis residential, ACT or mobile crisis teams. For instance, 99% of the individuals who received ACT were only in the 5 larger counties. Approximately 97% of the individuals who received crisis services were in these same counties. The availability of partial hospitalization and mobile treatment teams was slightly better for individuals in other counties. Approximately 8% of the individuals receiving partial hospitalization services and 14% of individuals receiving MTT in FY2007 were not from the five largest counties.

Although the array of crisis and diversion services is fairly robust in seven jurisdictions, the capacity is limited. For instance:

- Most crisis programs have limited or no funding for 24/7 coverage for mobile crisis teams. This gap in coverage is filled by law enforcement and emergency departments when a crisis team can not be dispatched.
- Two CSAs have limited or no capacity for crisis residential services. This impedes the ability of the MCT to effectively divert individuals from inpatient care when they need 24 hour supervision but do not need the intensive medical oversight offered in a medical facility.
- All of the CSAs interviewed stated that a significant number of individuals who present for crisis services have a co-occurring mental health and addictive disorder. Data available from the Hospital Diversion Program indicates that 26% of individuals were diverted to a substance abuse residential treatment program.

There is limited urgent care capacity throughout the state and even within some of the larger counties. Unlike mobile crisis teams, crisis residential services or diversion services there is no urgent care model for individuals experiencing an acute mental health crisis. Some jurisdictions, Baltimore County and Anne Arundel, have an identified urgent care program that operates during the week, evening and on weekends. Other jurisdictions have to “cobble” together an urgent care team with their MCT or through small contracts with psychiatrists and other treatment staff.

Creating additional crisis and diversion capacity will be a significant cost to the Public Mental Health System. Third party payers, including Medicaid, do not cover some of these services or reimburse when an intervention by other than a licensed professional provides the service or when they are provided outside of a traditional office setting. Even then, the demand for service is unpredictable and therefore it is difficult to accurately project annual revenues from these payers. This problem is exacerbated in rural areas where there is less demand for the service. Therefore, much of the responsibility to fund crisis services to be available on an as needed basis is the responsibility of the PMHS. In some instances,

obtaining payer information in a crisis situation is challenging. Individuals and families may not be able to identify or remember their insurance coverage when under duress.

In addition, the crisis system does not operate in a vacuum. Crisis providers rely on the availability of other services (e.g. acute detoxification) or temporary and more permanent housing. In some jurisdictions individuals who are homeless account for 30% of the referrals to MCT. The extent to which other public payers have the ability and willingness to develop these resources is critical to the success and mission of the crisis and diversion efforts.

## **VII. Policy Options Based on Concerns Identified**

### ***Concern: Lack of diversion and I/P alternatives currently offered.***

There are several strategies that should be considered to expand and improve the array of crisis and diversion services. One strategy that was unanimously identified by CSAs was expanding the coverage of current MCT teams to ensure 24/7 availability. In addition, the two CSAs without existing residential crisis capacity prioritized this service for their area.

In addition, the Hospital Diversion Programs could be expanded to other areas of the state and to Medicaid recipients. The initial focus for this expansion could be those jurisdictions that have the highest admission by uninsured individuals and Medicaid recipients to inpatient psychiatric beds including state and private psychiatric facilities. The HDP program in existing areas could be expanded to include other hospitals that do not currently participate in the HDP.

Access to medical or residential detoxification beds should also be a priority. The CSAs interviewed by the University of Maryland indicated that between 25 and 75% of individuals seeking crisis services had both disorders. Four CSAs indicated that approximately 45-50% of their MCTs served individuals who had significant alcohol or drug histories. The high proportion of individuals with co-occurring mental health conditions and addiction disorders would indicate the need for MCTs to have immediate access to these services. This effort would have to be well coordinated with the Alcohol and Drug Abuse Administration, the Single State Agency for substance abuse services.

### ***Concern: The capability of current Emergency Departments within the all-payer system to more effectively assess patients for I/P or alternative care***

Regardless of growth in community-based alternatives, Emergency Departments will continue to see persons experiencing psychiatric and or/substance use crises. There are a number of strategies to consider in increasing the capability and competence of hospital-based emergency psychiatric care.

Options:

- 1) An analysis of hospital-specific service demand, patient demographics, physical space and throughput for psychiatric patients could identify hospitals where an alternate protocol might enhance services for the patients and benefit the emergency department as well. The protocol might address the triage function, physical space of service delivery, use of psychiatrically trained staff, order of service delivery, management of co-morbid general medical conditions, training in and use of clinical protocols, a continuum of brief treatment options, interface with ongoing treatment provider, interface with community resources and discharge planning.

In order to maximize the benefits of changes in Emergency Departments, it is important that hospitals are fully aware of the full array and availability of community resources and that some portion of these services be reserved for primary use by persons in crisis upon referral from an emergency department. This means making transparent to the hospitals real-time capacity for services such as: new/follow-up urgent appointments, crisis residential care, detoxification services, in-home supports, transitional housing, homelessness resources, case management of complex cases. A lack of confidence in the availability of services will not have the expected impact on streamlining emergency department services and reducing unnecessary admissions.

2) Another consideration that would maximize the benefit of specialized services by reducing length of stay in the emergency department would be a state-wide strategy to expedite the search for an inpatient psychiatric bed when it is needed. The use of a secure server based tool with real-time updates from each of the hospitals could accomplish this.

- 3) The use of 23-hour observation or similar beds in an area adjacent to the emergency department could reduce the use of hospitalization for persons who, though they meet the criteria for hospitalization during the initial assessment are thought likely to “clear” within a short period of time. This preserves the inpatient bed for a patient needing a longer stay and does not unduly burden the inpatient unit with an inefficient, rapid turnover in patient beds.

### ***Concern 3: Development of New Services—focus on Urgent Care***

The January 2007 report, *Use of Maryland Hospitals Emergency Departments*, indicated that “more than one-third (35.4 percent) of all emergency department visits in Maryland were classified as non-emergent or emergent but primary care treatable in 2005—an increase over experience in 2001.”<sup>55</sup> This finding would indicate the need to explore the potential for developing additional urgent care and outpatient capacity.

This direction was supported by the CSAs and MHA. In these discussions, expansion of formal urgent care programs was also identified as a priority. Several jurisdictions had developed unique urgent care models for diverting individuals from both EDs as well as MCTs. These individuals indicated that the development of additional urgent care capacity would:

- Reduce the unnecessary use of the emergency departments.
- Provide another point of entry for individuals who were seeking treatment. The urgent care center could provide the necessary linkages and transition to ongoing outpatient care that are beyond the purview of EDs.
- Provides a “safe” place for individuals to obtain immediate crisis services. The model also allows individuals to access services who may not want an MCT (especially a team that included law enforcement) to perform a home visit.

While there is limited research regarding the effectiveness of this approach, the Task Force may want to consider the expansion of urgent care in Maryland using existing models. Some of these models were hospital-based (e.g. University of Maryland), and others were

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<sup>55</sup> Maryland Health Care Commission, *Use of Maryland Hospitals Emergency Departments: An Update and Recommended Strategies to Reduce Crowding*, Jan 2007

part of their comprehensive crisis program (Anne Arundel County). These models would indicate that an urgent care approach should include immediate access to psychiatric assessment, including an evaluation of the need for medication and prescription drugs (either having a pharmacy on-site or a close working relationship with a nearby pharmacy). The urgent care centers should also have the ability to provide brief treatment for a short period of time (up to 4 visits over a two week period). Finally the urgent care centers should have the capacity to identify and plan for follow-up treatment and have staff that will ensure transition from urgent care to the next course of treatment.

## **VIII. Task Force Discussion Questions**

For individuals who are not currently under treatment but are in crisis in the community:

- Given limited funding, can we prioritize the services that should be in place to prevent hospitalization, based on their clinical value, their cost, and their demonstrated cost-effectiveness?
  - Partial hospitalization
  - Residential crisis services
  - Mobile crisis services
  - Crisis implementation teams
  - Urgent care services
- Given the high prevalence of co-morbid mental illness and substance abuse, are there models for blending (or “braiding”) funding streams to avoid psychiatric hospitalization?

For individuals who are, or recently were, in treatment in the state system, what priority should be given to the development of more state funded community-based treatment programs, specifically:

- Given limited funding, can we prioritize the services with ongoing responsibility for the individual’s care that should be in place to prevent hospitalization, based on their clinical value, their cost, and their demonstrated cost-effectiveness?
  - Assertive community treatment teams
  - Mobile treatment teams
  - Intensive home-based treatment teams
- What priority should be given to the development of more intensive time limited interventions for these populations, such as:
  - Partial hospitalization
  - Residential crisis services
- Given the high prevalence of co-morbid mental illness and substance abuse, are there models for blending (or “braiding”) funding streams to avoid psychiatric hospitalization?

Once a patient is in the emergency department for evaluation and disposition, efficient and appropriate evaluation and disposition is important

- Are the current evaluations generally clinically appropriate and do they accurately identify appropriate dispositions?
- Do emergency department personnel generally know about available community programs that may help avert hospitalization? If not, how might awareness and communication be improved?
- Are hospital diversion programs of demonstrated value and cost-effectiveness?

States that have been most successful in developing community-based treatment programs, crisis intervention services, and hospital diversion programs and that have reduced or eliminated acute hospitalization in state hospitals have financed substantial parts of the community services by reprogramming funds from state hospitals.

- What are the challenges in Maryland to further shifting of funding to community programs?
- Are there approaches to this reprogramming of funding that are most likely to succeed?
- What are the potential risks or adverse consequences of this reprogramming?